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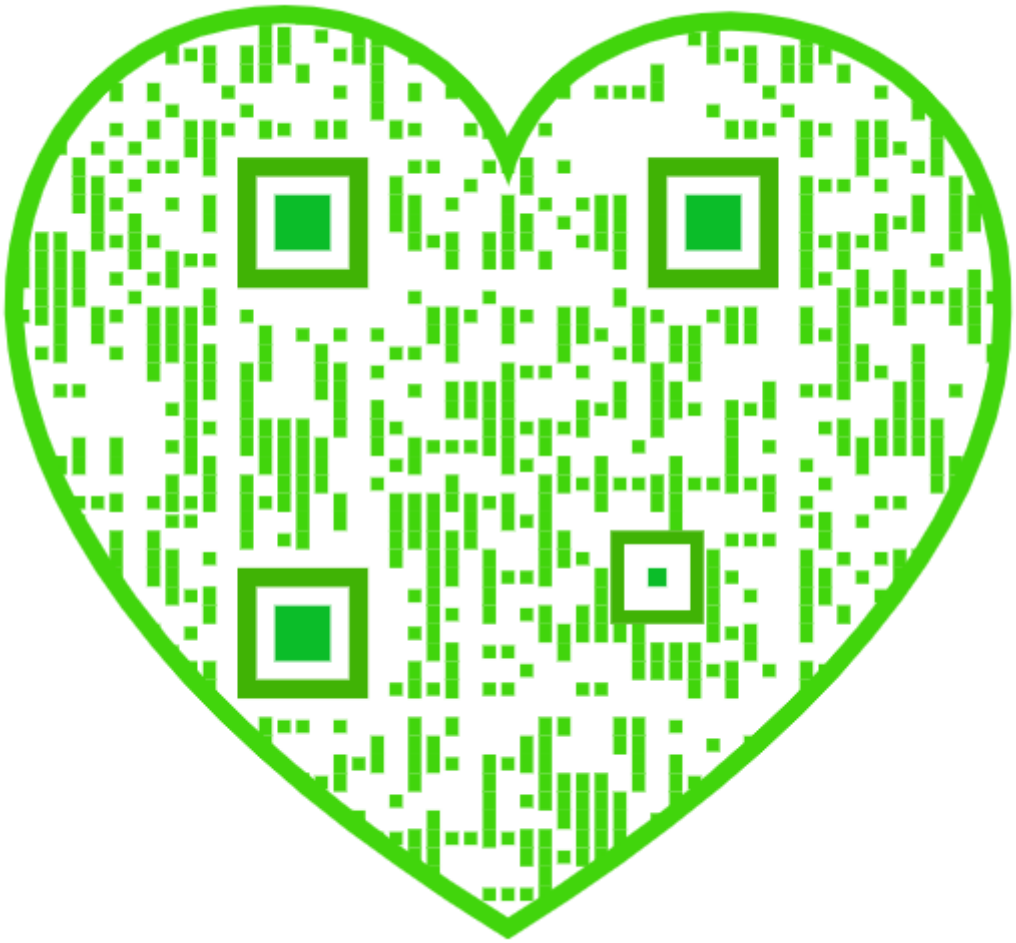

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Yours very truly,
Geo. P. Burnham.

PART ONE.

DISEASES

OF

DOMESTIC POULTRY.

HOW TO AVOID AND CURE THEM.

By GEO. P. BURNHAM.

AUTHOR OF THE "NEW ENGLAND POULTRY BREEDER," THE "HISTORY OF THE HEN FEVER," "BURNHAM'S NEW POULTRY BOOK," THE "CHINA FOWL—SHANGHAE, COCHIN, AND BRAHMA," ETC.

WITH A PORTRAIT OF THE AUTHOR.

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MELROSE, MASS.

1876.

NOTE TO THIRD EDITION.

We have received from all quarters—and without an exception, through extensive private correspondence, since our little work was put upon the market in September—the most flattering encomiums regarding the value and utility of this treatise. Breeders and fanciers throughout the country have approved the volume, unqualifiedly, as "the best thing of its kind ever published."

The POULTRY WORLD says, "It will achieve a lasting popularity, and remain a standard work of great value." The FANCIER'S JOURNAL says, "It should be in the hands of every fowl-breeder in the land." The POULTRY REVIEW recommends it cordially, and with great confidence in its utility. Hon. Geo. B. Loring is "much impressed by the excellence of its arrangement, and with the value of its contents." The CHICAGO POULTRY JOURNAL says, "It is a handbook that should be owned by every man who has the care of fowls." Gen. C. A. Johnson pronounces it "a timely need, most adequately supplied. I consider this book the greatest boon yet conferred on the poultry fraternity." Geo. O. Brown affirms that "this volume contains information that fowl-breeders cannot afford to be without. It has long been needed, and this fills the bill, completely." Edmund S. Ralph writes "It is very concise, and what is said is written strait to the point." C. A. Sweet, President of the AMERICAN POULTRY ASSOCIATION says, "This excellent work should form part of every fancier's and breeder's library." I. K. Felch thinks "this is a work that all fowl breeders should own—as it is a guide to the PREVENTION of disease; of far more value than modes to cure them." A. D. Warren pronounces it valuable, and adds "in my judgement no book has ever been written on the subject of Poultry Diseases, that contains so much of common-sense advice, in so few words." Wm. E. Flower says, "It will prove a boon, indeed, to all who keep poultry." Isaac Van Winkle says, "Mr. Burnham has in this work conferred upon the poultry community an invaluable benefit." T. B. Miner writes, "I consider this the most important and valuable work for its size that has ever been written, on matters pertaining to poultry." Etc

A prominent Western fancier writes me thus, from Kentucky:—

* * * "Your book on 'Diseases of Poultry' is received. I esteem it the most valuable work of its kind in existence. And had I possessed a copy six weeks earlier, I am certain I could have been enabled to have saved the lives of twelve or fifteen very valuable fowls. As it is, I have applied its precepts with marked benefit to the balance of my invalid fowl stock; and I shall not fail to recommend your excellent book most earnestly to all brother fanciers."

We call attention to the chapter of "ADDENDA," at the close of the present edition; and trust that all will similarly "apply the precepts" suggested, in a THOROUGH manner.

MELROSE, DECEMBER, 1876.

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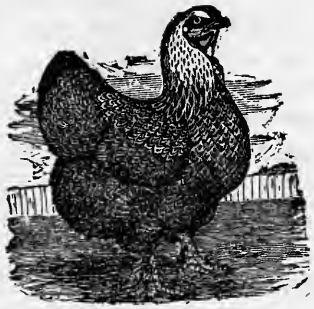

PART ONE.

POULTRY DISEASES

are by no means manifold, nor are these disorders vastly varied in character. A sick fowl is a "poor creature," verily! And the advice of Robert Scot Burn to mercilessly (or rather mercifully) give such subject over to the hand of the executioner, generally speaking — rather than attempt to "doctor" and restore it — suggests the least troublesome way to get rid of the chicken-house eyesore. And seven times in ten this is a humane and sensible mode whereby to "cure" the evil upon the premises where the sickness originates.

This summary course of procedure is not however uniformly advisable in cases of fowl sickness. Nor is it either economical or necessary — especially in instances where the bird is valuable, more than ordinarily.

Diseases in poultry are not unlike those that assail human beings, in one respect: — fowls are commonly half dead before the disorders that attack them are understood; and they are

quite half cured, as soon as their keepers appreciate what the difficulty may be. The sick man is usually half dead before he knows what is his ailment — and he is half recovered, when he learns what his trouble really is. In this connection we may say, at the outset, that we deem it quite important that the veritable character of the disease under which the afflicted fowl may be suffering should be appreciated, before we commence dosing it — in any event.

If vermin be the cause of the drooping, sluggish, depressed condition frequently evinced in a sick bird, this fact should first be comprehended; since we would not doctor a chicken for roup, or dysentery, to relieve it from a "violent attack" of lice.

On the other hand, if the chicken is assailed with clearly roupy or inflammatory symptoms, we can have no occasion to administer sulphur or carbolic powder, outwardly, through its feathers, in an attempt to effect a cure of this really internal head or stomach difficulty.

First, then, *let us ascertain what the matter is* with the birds we find nominally "diseased." If we are unable through inexperience to determine this primal question, or if the symptoms indicate the approach of some disorder that is to our eye unfamiliar, then we should call in some friend, or expert, who can aid in determining the diagnosis of the ailment. For — at the beginning — if we do not know what the illness *is*, how can any one intelligently venture to prescribe for it?

As we proceed, therefore, I shall briefly endeavor to explain what *usually* occurs among the tenants of the poultry-house, when they are getting ill, or when they first show the premonitory symptoms of ordinary diseases. And I will then suggest such remedies as have proved efficacious in my own experience, or in that of friends whose practice I am acquainted with. Again insisting that more fatal errors in treatment of fowl stock, when "under the weather," occur from ignorance of what their ailment actually is, than follow from all the real assaults the feathered kingdom are ever stricken down with.

The application of a fir-balsam plaster upon a fowl's accidentally-wounded throat or flank, may heal the cut or gap, if we know how and where to affix the soothing remedial. But if this curative be used to palliate or relieve a case of dysentery, for instance, by applying it upon the fowl's rump-gland, it would scarcely produce the desired result.

Yet just such ridiculous follies as this — in effect — are every week indulged in by novices and experimentalists, who are ignorant as to what the poor bird's ails may be; and who as often as any way doctor them for *diarrhœa*, when the fowl is really suffering from *constipation* of the bowels!

A very general misconception is entertained among those who have to do with poultry-keeping, in regard to the character, the extent, and the symptoms of fowl diseases.

It is claimed by many writers on this subject that about all the catalogue of technical ills that human flesh is heir to — from a common *cold* to incurable *fevers* and *cholera* — are the natural portion of the fowl race in modern times; and the *names* given by these savans to chicken sickness, in number and variety are legion.

Now the writer of this present treatise is very well known to have had a wide experience in raising poultry. For upwards of a third of a century he has been engaged in this work — practically and experimentally. And he has thus had ample opportunity to learn something of both sick and healthy fowls, in that long period, assuredly.

We, therefore, speaking of our own knowledge, maintain that instead of the almost numberless *kinds* of diseases to which fowls are said to be subject, as a matter of fact there are but very few different ails that affect poultry. And the grand *causes* producing these ailments are traceable almost universally to one and the same, or analogous sources, for their origin.

For example, we read in the Poultry books of the day that "of the nominal diseases which are prevalent among domestic

gallinaceous fowls, the following may be mentioned, as common: " a most comprehensive list, indeed !

Apoplexy, Asthma, Roup, Vertigo, Paralysis, Indigestion, Catarrh, Canker, Pip, Colds, Gapes, Snuffles, Sore head, Hoarseness, Crop-bound, Inflamations, Drooping, Diarrhœa, Constipation, Dropsy, Scaly legs, Loss of plumage, White Comb, Black Comb, Dyphtheria, Vermin, Lethargy, Rheumatics, Cramps, Dizziness, Egg-eating, Bumble-foot, Gout, Feather-eating, Collapse of muscles, Debility, Breaking down in the limbs, Egg-sac rupture, Dysentery, Fevers, Moulting, Cholera, and *other* afflictions unknown.

Here are some forty, only ! Now of this extraordinary category of so *called* " diseases " amongst poultry, there are but about half a dozen actual ails which domesticated fowls are generally subject to, that go to make up this elongated, horrifying list.

And these, as a rule (not of course invariably, because there are exceptions to all rules), are in the main manageable, preventable, or curable — through the exercise of a goodly share of common sense, a little ordinary intelligence, some practice, and a kindly disposition towards the sufferers.

Roup — for instance — in its various phases is simply catarrh, dyphtheria, hoarseness, snuffles, inflammation in throat and nostrils, a cold, sore head, diarrhœa, loss of appetite, lethargy, drooping, cramp, asthma, dizziness, general debility, fever — and death. This is ROUP — *pluribus in unum* — many in one.

Of the forty-two different varieties of so-denominated " diseases " which we have here quoted from a leading poultry work, common *roup* actually represents about one half of the catalogue distinctly and separately named, by a noted author " learned " on other subjects, but very ignorant about this !

We propose therefore in this treatise to consider the Diseases of Poultry under five or six general heads, only; inasmuch as if we take cognizance of ROUP, INDIGESTION, external and internal INFLAMMATIONS, LICE, CHOLERATIC attacks, and acci-

dental affections, we may account for, and explain the causes and effects of all the ills otherwise *named*, which we find the astute poultry-writers of modern days have given us so fearful an inventory of.

It has been accurately stated by the experienced editor of the Hartford Poultry World that "roup, lice, feather-eating, and choleratic difficulties are four things that occasion American poultry men more trouble, first and last, than all other "diseases" among fowls that are nameable, combined."

And nothing can be truer than this.

For conciseness, then, we will consider the subject-matter of this little work under a few distinct heads; and point out as we have found them advantageous in long practice — the remedies for ordinary fowl diseases.

FIRST, VERMIN.

We commence with this pest of the poultry-house, because, though not by itself literally a *disease*, it is absolutely the prime cause of more torment, sickness, and destruction to fowl-life, than *all* other evils to which poultry is prone, of any description whatsoever.

We assert without fear of successful contradiction that more chickens and young fowls are annually destroyed from being infested with this nuisance on their bodies, and from its presence in the nests, coops, and about the roosts they frequent, than are lost through any and all other causes poultry keepers know anything of.

Lice generate and multiply rapidly in foul or dark premises, upon neglected nests and perches where the birds lay or congregate at night, or in the cracks and crevices of the poultry-house; and thence among the feathers of the fowls, old or young, they swarm in myriads, if not seasonably taken care of and dispersed or destroyed.

There is no controlling or limiting the depredations of these innumerable parasites, except by their absolute extermination.

And this is effected only through eternal vigilance. They are of all enemies, the most insidious, constant and pernicious foe to poultry, and to young chicks especially.

The whole feathered tribe (in a domestic state) is peculiarly subject to this infection. Many persons who keep fowls, pigeons, or pet cage-birds, do not understand this. And rarely taking effective measures to prevent their accumulation, they know not why it is that their fowls fail, droop, sicken, and die—one after another, from no apparent organic indisposition. The trouble is they have been "eaten up alive," by VERMIN.

A friend residing not far distant from our town erected a nice large poultry-house, three years ago, 100 by 32 feet in dimensions. Into this, in six compartments, he huddled 160 breeding fowls. Within two months, he complained that his setting-hens would not remain on their nests. And he actually lost over thirty fowls, who died from no outwardly seeming cause — while, during the season, he contrived to hatch only 65 chicks, out of nearly 800 eggs he set!

He came to us for advice. We examined his premises, and instantly discovered the vexation, which he had never suspected, even. The house *was filled with vermin*, and millions of lice were rioting upon his fowls' bodies, in the nests, and over his roosts. We pointed out the difficulty, and suggested our remedy. And the following year (from the same stock) he successfully raised over 500 chickens, while he lost but half a dozen adult birds, and these from accidental causes.

In this brief work, we cannot refer to many other similar cases, except in a general way. But, of all the prime causes that result in disease or death among domestic poultry, it may safely be set down that the presence of lice among them is the chiefest of evils.

Upon young chicks of the crested varieties, such as Houdans, Polands, etc., the tufts of their heads are a favorite shelter for vermin; and hundreds are thus destroyed, annually, by these parasites. Great care should be exercised by breeders of these varieties, to keep their chicks free from this nuisance.

It is not sufficient that you clear out this pest once, or twice, or thrice. If you continue to breed fowls, you must not only continue to drive these parasites away, but you must keep them at a distance — or they will beat you, in the end.

And we repeat the assertion, that to our constant hostility to them, and a continuous vigilance towards their annihilation upon our own premises, for years after we satisfied ourself of their baleful influence, do we owe the subsequent generally healthy condition of our own stock, at last.

Lousy fowls are never healthy, and are usually short-lived. Three-fourths of all the chicks that die before they are two months old, are killed by vermin. And those who lose them can never account for the fearful mortality accruing among their chickens.

But all this destruction may be avoided, and there is a certain remedy for this offensive and troublous nuisance; which precedes and fatally aids the inception, progress, and finale to all other described "diseases," save those of accident or inheritance.

PREVENTION *of the possibility of their presence* to any extent, in your hen-houses, or upon the bodies of the fowls, is the only positive cure for this evil.

To effect this, the building, however economically constructed — and whether small or large — should be of dimensions proportionate to the number of birds you keep under a single roof; and these should be rendered comfortable for the stock.

When you first place fowls within the house, see to it that *every* bird is cleansed from lice, before he or she enters it. Don't *begin* at the wrong end, by putting lousy fowls into a new or clean hen-house.

To clear them of parasites, rub dry powdered sulphur, or carbolic powder, thoroughly through the feathers (to the skin) of adult fowls; and under each wing of cocks and hens, smear a little mixture of lard, sulphur-dust, and kerosene — as well as a dab of this also at the back of the head, and around and above

the vent. Follow this up (outside your clean house) for three days — and you will thus, when you introduce your birds to their chosen premises, carry in no vermin at the commencement. They will *leave* — rest assured of this.

Upon young chicks, the lard and kerosene should be dispensed with. The powdered sulphur alone, or the carbolic powder, if thoroughly applied, is sufficient on their little bodies; and the other is too pungent and penetrating, until they are older, and tougher-skinned.

Now, sponge the roosts once in a week or fortnight with kerosene, or spirits of turpentine. Do this in the day time. It will thus dry off or evaporate mostly by nightfall. The *fumes* remain, however, and these are death to the parasites, if any are about.

Next, dust the laying nests and the sitting-coops, with the sulphur. Place under the straw where hens sit dry tobacco leaves, if convenient. And upon the bottom and sides of nest-boxes rub the kerosene, occasionally.

Among the varieties of parasites that breeders have found excessively troublesome, none have proved more difficult to destroy or get rid of, when once they obtain possession of the fowl-premises or get a hold on their bodies, than the small *red* louse (or "red-spider," as some call it, being not unlike the greenhouse *aphis*), — which infests many localities. This kind of vermin is not generally common, but they are very annoying, and destructive as well, if they are suffered to accumulate.

Sulphur alone dusted upon fowls will not destroy this "red spider." But a thorough fumigation of the house they infest, by closing the building tightly and burning a few pounds of rosin and sulphur together inside, will "clean them out." Carbolic powder rubbed through the fowls' feathers, and the washing of your roosts with kerosene two or three times will finish them effectually, if this be faithfully done.

In the dust-boxes, where the fowls enjoy their daily roll, place finely sifted leached ashes, and a pound or two of the powdered sulphur mixed. Fumigate your houses twice or thrice

in a season, by burning a pot of crude brimstone and rosin inside (when the fowls are absent, and it is tightly closed up,) and our word for it, whatever else you may be troubled with, fowl *vermin* will not annoy you, your poultry, or your premises — when once you are ridded of this nuisance; which, as we have intimated, is the most trying, destructive, and pernicious secret scourge that afflicts domesticated fowl flesh, from the shell to their grave — if not kept at bay.

ROUP — AND ITS PHASES.

This common fowl malady — designated by various different hard names, as we have indicated—embraces the ills usually denominated by the superficial observer as sore head, inflamed eyes, dyphtheria, pustulated nostrils, a cold, hoarseness, heavy breathing, foul throat, snuffles, drowsiness, canker, blindness, drooping, cramps, fever or general debility, etc.

It is so complicated in its character, and outwardly so varied in different cases, it is not surprising that so many different titles should obtain for its numerous phases. But all is *roup*.

It is brought on and confirmed by keeping fowls in damp, cold, sunless quarters. From their exposure to wet, chilling weather, and drafts of harsh winds. It results through neglect of the birds' ordinary comfort, and by their eating poor food. It will be caused by obliging your stock to drink foul stale water, or by serving them with "damaged" grain. It will attack the flocks that are compelled to hive and roost in badly ventilated hen-houses. Filthy floors, covered by or impregnated with their accumulated excrements, will thus sicken them. In these poor conditions, *vermin* will assail the weakened birds without mercy, and this adds to the evil and augments the roup amongst them, inevitably.

A roupy fowl may be known from any of the symptoms or indications first above noted. This disease is insidious—as well as multiform in the outward tokens of its approach, or its

presence. It breaks out suddenly, often, and attacks several birds, apparently, at about the same time.

The victims will droop, appear indolent, gapey, listless, and uncomfortable. Then the heads swell, the nostrils fill up, the comb and wattles turn pale, they breathe heavily, sulk around in the corners of coop or run, snip and sneeze, grow blind from swollen pustules gathering in and around the cheeks and eyes, lose their appetites, and finally fall away and die.

The earliest certain signs of this disease among the flock are usually discovered by the inordinate listlessness of the victims, and their moping about sluggishly. Loss of appetite is also an early token of this illness. The comb of the hens pale and whitens — or sometimes turns dark colored. The breathing grows stifled, and the breath becomes foul. The eyes are first watery, and then fill (often to blinding) with acrid mucous matter. Pustules form around the upper portion of the beak, in the gullet, and under the eyes. The head is inflamed. They gape, and gasp, "rattle in the throat," become ruffled in plumage, and decline to mount the roosts at evening.

Roup usually comes on gradually. But it often occurs suddenly — from contraction of a severe cold, in wet, bad seasons. Fever ensues, the eyes close up with the swelling of the cheek glands, and thus the poor bird cannot see to eat — if inclined — which generally it is not, in this state. They suffer greatly from thirst, evidently, in the meantime.

The crop is usually found more or less distended, and the sufferer appears in pain, constantly. The nostrils are soon closed with the swelling and accumulating pus also, and they breathe with marked difficulty. So long as they can see, the affected birds will drink, incessantly. The forming pustules exude a froth, at times. This falls from the sores into the water-vessels, and the well fowls drink from the same fountain. This sickens others; and the contagion quickly spreads through the flock — if the afflicted bird or birds be not in time removed from amongst their companions.

Common powder of sulphur (as well as pulverized charcoal)

is an admirable ingredient to mix in small quantities with soft fowl feed. Say a teaspoonful in the mash for a dozen adult birds, in one daily feed for three days at a time. This operates as a laxative, and the sulphur works outward through the skin-pores — thus assisting to keep the birds' bodies free from vermin to a certain extent. Raw onions cut up fine, as an occasional "green food," acts similarly upon their system; and is highly beneficial for the purposes above noted.

Fine sulphur, powdered charcoal, and chopped onions — when given discreetly — will each and all be found very serviceable to adult birds, especially when inclined to be roupy — as correctives, laxatives, and purifiers of the crop and stomach, in cold or hot weather.

Roup attacks fowls of all ages, but generally the younger birds and chickens are not so liable to it. It is both chronic and acute, and its contaminating influence is remarkable, where prompt remedies are neglected. Whole yards have been decimated by it, in a few weeks, where the sick birds were left to run *ad libitum* with the healthy fowls. And this result has been denominated in certain quarters, undoubtedly, by uninformed persons, "an attack of Chicken *Cholera*" upon their premises.

Roup, therefore, like the mischief occasioned by lice, is but little comprehended. None but experienced poultry men recognize this baleful disease in its true light, and *they* learn about all its wretched characteristics and difficulties only by slow degrees, and after many losses, as well. Its ramifications are extensive, and its phases are both curious and threatening, if the disease gets a fair foothold in one's runs.

Catarrh is roup. We are well aware that enlightened Doctors of medicine assert that these two are different diseases. But we are writing about the ails of gallinaceous poultry, and not about those of human beings. Men and women are not afflicted with *roup*, thank Heaven! but they live a great many years, and suffer with catarrh; while in poultry the symptoms of both are identical. And so, as far as our careful observa-

tion teaches, we are satisfied that what some learned medical men declare to be " catarrh " in fowls, is simply and clearly a phase of roup.

The cure for roup is, at the earliest moment after any of the first symptoms described are discovered, to take the affected fowl away from his or her mates, and nurse it, if it is to be " doctored " at all, at a distance from the others.

Let such sick birds have clean, dry, warm quarters, and if not too far advanced, the head and nostrils may be thoroughly washed with Castile soap-suds, and then with weak alum-water, or a solution of chlorate of potash, thrice a day. After a day or two, bathe the head and nostrils in whiskey, or diluted spirits of camphor—and give a little Cayenne pepper in warm cooked mash, for food. A couple of mustard or pulverized ginger pills, the size of small marbles, in each warm feed, are very good. And, as is stated on page 30, the use of Jacob Graves' Roup Pills is confidently advised as an excellent remedial, if judiciously given. As soon as the bird can see to drink, give him Cayenne pepper in the water. All these are warming, corrective, and good tonics. A most excellent mixture for a daily injection into the throat and nostrils, is a solution of sal-soda and another of chlorinated lime, half and half, put into four parts of water. This will remove the morbid deposits around the head and beak, and cleanse the disorderd parts.

Dr. John C. Bennett used to advise the administering of pulverized charcoal, powdered sulphur, and new yeast,— three equal parts, in a flour pill the size of a hazel-nut, three times a day, for a roupy fowl,—accompanied by the bathing as above. But what the fowl most needs is cleanliness, warmth and dry quarters for a few days. If the case is not severe, he will recover. If it is a very bad one —knock the bird on the head and bury it. If you have several cases at one time, before you take them in hand—take away the healthy birds promptly, and apply the above remedies to the rest. And if they are worth saving, you will be able with care to restore them, after a week's attentive nursing, bathing, and feeding.

In all this doctoring of badly distempered fowls, I commend to the attention of those who have the work to do, that they handle the diseased birds with leather or thin India-rubber gloves — lest from a previous fresh cut upon the fingers, or an open scratch on the hands even, their flesh be innoculated with the pus often present upon the bird's foul sores or wounds.

Several cases are authentically reported, where attendants upon horses or cattle, affected with glanders or epizootic diseases, have thus been seriously injured. And we are personally knowing to more than one instance where poultry-keepers, in doctoring sick fowls, have contracted a troublesome affection, which required weeks of subsequent care to remove from their flesh. One person within our knowledge at this writing, is suffering with a diseased *eye*, into which he carelessly rubbed the edge of his hand while manipulating some roupy chickens. And the humor thus generated may destroy the sight, in his case, it is feared. We therefore deem this cautionary suggestion worthy of particular notice — a hint we have never met with yet, in public print.*

To avoid the presence or assaults of roup in your fowl-flocks, we recommend a better "remedy" against this ugly disease than the cure thus proposed. This is *prevention.*

There is no need whatever that a breeder should be greatly troubled with any of the phases of roup. Watchfulness on the part of the keeper for its probable appearance in bad weather, and *immediate* action, as soon as the first symptoms appear in any one individual bird, will stave off this disease at any time; and it cannot thus become serious.

But best of all, is so to provide for your stock that they shall have good warm shelter, in cold and stormy weather — that they may not be huddled together in masses, to poison each other with the foul emanations from their bodies, by day or by night — that they may have sweet fresh water daily to drink — that their food be cleanly and nutritious; and above all, and over all, that they be not exposed to the depredations of devouring

*Since this was written, the party referred to has nearly lost the sight of his eye.

and enervating lice. And thus you will have little or no *roup* among them, of a dangerous or unmanageable character.

If left to forage for themselves in wet or foul yards and malarious grounds, if exposed to cold draughts in the house, and raw winds outside, if suffered to waddle and wade in barn-yard filth and drink stale, putrid water, if compelled to eat foul food, and but little of it — they will not only get lousy but roupy, as well; and you will find that fowl-keeping in this loose, improper, inhuman style "don't pay," and it ought not to be remunerative, under such conditions and such reckless usage.

But, as we have observed, this "roup" disease is in its indications and operations both manifold and complicated. And hence the various kinds of names that different inexperienced persons give to it. Yet it is wholly peculiar to *domesticated* fowls, alone.

Therefore the *cause* of the malady must be looked for in the conditions which surround the tamed feathered race; inasmuch as no authority has reported an instance where a wild turkey, grouse, or prairie hen — a partridge, pheasant, or quail — a woodcock, snipe, or teal — a wild goose, duck, or other sea-fowl — snared or shot, ever yet was found in its native free condition exhibiting *any* token of this roup about their bodies, externally or internally.

And since this affliction so often falls to the lot of the dumb creatures we attempt to keep around us for profit, (or that they may conduce to our pleasure, convenience, or partial sustenance, it may be) it is but dutiful that we use proper care, if we keep them at all, that our poultry is so attended and provided for, that the pernicious *causes which produce this trouble* may not be permitted to exist about our farms and poultry premises; when, in such large measure, the evil may so readily be kept at a distance.

By the observance of the suggestions we have already made, this prevention of the presence of roup, to any extent, may easily be accomplished. And we can guarantee immunity from

this curse of the poultry-house, if our hard-earned personal knowledge upon this point be accepted as truthful, and adopted by the readers of this timely and reasonable advice.

In no other way can roup, in some or all of its obnoxious phases, be kept from infecting your fowl-stock. And however easy it may be to the skilled breeder to cure this disorder, when he finds it unfortunately breaking out among his flock, the labor of averting the cause of its attacks, is far less than the trouble it occasions to eradicate the nuisance — after it fairly shows itself on your premises.

For this good reason, we advise the humane and economically disposed fancier to look well to the possible *prevention* of roup in his fowl-houses — rather than to the best way to remedy the evil, which with due care he may rarely or never be annoyed with.

INDIGESTION, INFLAMMATION, ETC.

Indigestion in fowls is of two kinds, and operates disastrously upon the crop, the stomach, and the bowels. Undigested food halting in the crop — whether dry or fluid — causes aggravated swelling and distention; the contents become hard and cakey, or puffy and watery, as the case may be.

The disease is sometimes slight and temporary in duration, working itself off without inconvenience save through causing the bird to fast, by the removal of food from within its reach, for a day or so.

In other and more numerous instances however, the fowl becomes "crop-bound," after a while, and the contents of this first receptacle for its food grows hard and harder, still swelling more and more, until it must be relieved of the sodden load, or the bird will die.

The process of remedy for this difficulty is simple, but it must be deftly and carefully performed. An opening should be made by one person, while another holds the bird, by an in-

cision in the outer skin of the swelled crop, at the upper side — and through this horizontal slit, say two inches long, the caked food may be turned out slowly and cautiously, until the offensive undigested matter is removed.

Then, with a sharp fine needle and white silk, (for most colored silk poisons the flesh) the edge of the opening should be neatly sewed together again. The relief will be immediate. The bird should be fed sparingly for a week afterwards, on cooked soft food, allowed but little drink meanwhile, and it will commonly recover. All this (as in other cases of chicken-doctoring) is not worth the trouble involved, unless the diseased fowl be a valuable one.

Indigestion frequently causes inflammation of the gizzard and liver, and the bowels become constipated, in consequence. But most commonly it operates quite oppositely, and diarrhœa or dysentery is the result.

In the latter case, the character of the affection is readily seen in the frequency and nature of the abdominal discharges. White and streaked yellow thin matter is voided. The bird rapidly loses flesh, and becomes weak and listless. And in a few days the disordered intestines are highly inflamed.

If attended to seasonably, the progress of the unnatural discharges may be without much difficulty arrested; and the fowl comes up again as rapidly as it went down, in spirits and strength. The evil may have been occasioned by the indulgence in too much green food, which sours and ferments in the crop or stomach, sometimes; or it may have been caused by exposure to wet and cold, or bad dry food, and "damaged" corn.

Change the diet at once, in either case. Give drink sparingly, and only such as is impregnated with iron tincture, or Cayenne pepper. Administer a few grains of dry ground rhubarb with as much common black pepper and powdered chalk — mixed in mashed boiled rice. This will shortly cure the bird, in ordinary cases. We do not advise the use of opium (as some do) and have rarely found any benefit from it.

When the fowl is brought so low as to require this powerful astringent — or, on the other hand, to need mercury, or even "blue mass" — we have not deemed it worth while to resort to these sometimes recommended agencies; having little faith in their efficacy, save *in extremis*.

Indigestion will cause dysentery, diarrhœa, constipation, stomach cramps, swelled crop, loss of appetite, fever, and general disorder in the internal functions. Thus, under one head we refer to all these, and advise due care in feeding, and properly contrived quarters for sheltering fowls, at all seasons, as a prevention to this not uncommon malady among poultry.

The symptoms of this trouble are very plainly exhibited, when a domesticated bird is affected by it seriously. There is no mistaking the fluid discharges, the straining to void this mucous, the rapid decline in their flesh, and the spiritless condition into which they droop, after a brief term.

And it will be necessary to look to them promptly and energetically, as soon as the indications mentioned are discovered — or they get beyond the reach of doctoring, from the excessive internal and intestinal irritation occasioned by this indigestion, and their continuously ineffectual exertions to relieve themselves, in the natural way. But this irregularity, like other diseases, must not be mistaken for what it is *not*.

Inflammation of the egg-sac, or of the oviduct, for instance, is a common disease in *hens*, especially of the larger varieties — Brahmas, Cochins, Dorkings, &c. We all know less of the intricacies of this affection, than we do about other poultry diseases. Yet it is frequently a serious matter in the yard of the fancier, who meets with and does not know how to treat it — since its symptoms are often mistaken for some other ail for which relief is attempted, but which has no effect upon the actually existing trouble.

A fowl's egg-sac (or oviduct) is a very delicately arranged structure, in which are encased the masses of ova, or germs of the eggs she lays during her natural existence. These ova are very diminutive in size *within* this sac, and pass out one by one

into the oviduct, as they mature — and thence down through this egg-passage — enlarging in yolk as they go.

When each yolk is nearly full formed, it will have reached the centre of this canal or tube, where the "white" of the egg is created, around outside of it. Then the membrane-linings form, (prior to which the yolk is impregnated, if ever) and the whole egg passes on to the lower end of the oviduct, near the vent — where the hard shell is quickly grown over all.

This last process is begun and completed in a few hours after the soft contents of the natural egg falls into the extreme lower end of the oviduct — and the hen shortly discharges her perfect hard-shelled egg.

If inflammation exist in any part of this sensitive and delicate portion of the fowl's internal conformation, the disease is serious, and her condition becomes critical. "Soft-shelled" eggs are laid, in consequence, or malformed yolks are often ejected, from this cause. And if early relief be not afforded, the hen dies — the owner knows not why.

The indications of this last mentioned difficulty are a ruffled state of the back and rump feathers, and the moping about of the sufferer, who will constantly be seen attempting to void the obstructions, as if afflicted with dysentery, or diarrhœa. If she can successfully extrude all the unformed yolks in the oviduct, she will recover. If not — and most frequently she is unable to accomplish this — the inflammation will in a few days destroy her.

If this inflammatory difficulty be seasonably subdued, relief is obtained easily. Remove the diseased hen directly from association with the male bird; and for this trouble give a dough-pill containing one grain of calomel and a tenth of a grain of tartar emetic. It may be necessary to give a second similar dose on the following day after the first application. The hen will stop laying for a few days — but this treatment will usually cure her, by reducing and dissipating the inflammation in the egg-passage, which is as often occasioned by over high feeding, or from taking sudden cold.

Feed such a bird lightly for a week or two subsequently, keep her away from the cock, and she will regain her health; unless, in her straining to free herself, she breaks an imperfect egg within her. In that case, apply the olive oil or castor oil injection, as elsewhere in this work advised. But this last noted accident most frequently kills the fowl — since the parts within have become so irritated by this time, that the egg-breaking is commonly fatal; though not always, with prompt and judicious treatment.

To prevent the occurrence or recurrence of indigestion among fowls, a systematic but *varied* mode of feeding, is both important and effective.

If, when confined, they are fed regularly with soft and hard food in variety, alternately, and are supplied with a due modicum of green food and pounded oyster or clam shells, and have constant access to fresh clean water daily — with the *necessity* of dry gravel at hand, to assist the process of digestion, the disease noted will rarely be known among the flocks.

And when they have a good range (in the warmer seasons) instead of being limited to their houses — if similarly fed and cared for — they will be especially exempt from "indigestion," which is a leading cause for the "inflammations," "fevers," diarrhœa, constipation, swelled crops, etc., we read about so frequently.

It may be well to suggest to the reader, here, that in doctoring birds for inflammation of the egg-sac, or lower egg-passage, care should be taken not to confound this affection with other (and lesser) internal troubles — like diarrhœa, dysentery, &c., occasioned by indigestion; since the treatment necessary is quite different, though the early symptoms of both disorders are akin, in *outward* demonstration.

Ascertain first, by critical examination, where the existing difficulty is seated. Then apply the remedy appropriate to the sufferer's relief. A vast deal of fowl-murder is unnecessarily committed through mistaking one malady for another,

through not knowing whether it be either the one or the other

A German writer recently declares, after repeated experimental examinations, that indigestion will often cause the malformation or depression of the breast-bone in chickens, acting from the interior; and he advises the free use of bone-meal in their early feeding. A good suggestion this.

CHRONIC RHEUMATISM, VERTIGO, ETC.

These maladies result almost invariably in the first place from undue exposure, and through neglectful treatment of the breeding fowls, in somebody's hands. Birds that are not furnished with warm roosting-places in the cold dreary fall and winter nights, or that are left to storm and wet and rain in springtime, when the weather is rough and boisterous, will always be troubled more or less with "chronic" rheumatics, lameness, vertigo, dizziness, sore throat, frozen limbs and combs, swelled head, etc., etc.

But all this sort of complaint is unnatural to the fowls, and is owing to no fault on their part. Chronic rheumatics and vertigo are inherited, mostly. Fowls afflicted with this infirmity, or which are kept in the inhuman manner that causes it, are not fit for breeding; and their "constitutional ills" are not only incurable, but it is not worth the cost to attempt to remedy such evils.

If they live at all, they are of little account, since they are always "ailing," are never fit for marketing, even, the hens lay few eggs, and altogether they are so useless as to warrant the complaint on the part of their owners that they "cannot see where the profit is in raising domestic fowls!"

Of this description of stock the above assumption is quite truthful. Yet those who are so unfortunate as to possess such birds, are answerable for their sad condition, largely. And the sooner *such* "breeders" relinquish the occupation, and consign

their wretched invalid fowls to final shelter beneath the dung-hill, or compost heap, the better for the birds, and for their own pecuniary interests.

We have seen more than one such flock of miserable bipeds, but we never owned any of this description; and our experience has afforded us no special information for their farther consideration.

A limping, halting, rheumatic cock, is a most useless and unsightly object around the fowl-runs, and should never be tolerated. His progeny come deformed, and the chickens raised from hens thus afflicted, are in the main but worthless, comparatively.

Attacks of vertigo, and sudden temporary dizziness in good fowls, occasionally occur, from high feeding — and apoplexy is thus brought about. But there is no known specific, that we are aware of, to remedy this last named evil — except to avoid over-feeding; which is quite as bad a practice as is starving one's fowls.

A bird may be struck by lightning. There is no known cure for this! And death from apoplexy is about as certain; while either assault is equally as "incurable" after the stroke.

FOWL "CHOLERA."

This is comparatively a *new* disease, in this country — or a new *name* originated for a very seriously destructive malady current in the Western and Southern States chiefly, that has baffled the skill of hen-doctors and poultry men generally, for a few years past.

We none of us know much about this disorder. Even those who have written directly upon its cause, as a specialty, admit that "the name is a misnomer;" and despite all their direct researches in the regions where this epidemic has prevailed, they have found out very little about it that is of a satisfactory

or conclusive nature — whether as regards its true cause, or pointing to a remedy against its recurrence.

From all we have seen and what we have read on the subject however, we have formed an opinion upon this ailment; and we will briefly state our views about what is denominated "chicken cholera, nowadays."

It is a curious complaint, which we in New England have had little experience with, except in its mildest and manageable form. The symptoms are those analogous to a sudden attack of violent diarrhœa; preceded by lassitude, sluggish movements, early prostration, and a general inertness in the victim assailed.

After death, which ensues in a brief space of time succeeding the attack and rapid sinking of the fowl into semi-unconsciousness, the liver is found to be swollen and flabby, the crop distended, the stomach foul, the gizzard filled with dried food, and the entrails are inflamed.

There is previous to death, a sharp diarrhœa wasting the life out of the bird, which ordinary treatment does not appear to affect or check, at all. And from these indications and symptoms, (which are not unlike some of those attending the Asiatic scourge in man) this disease has been denominated *cholera.*

Mr. W. H. Todd, the noted Western breeder, has had some experience with this fowl trouble, and he thinks that much of what is *termed* cholera, is something else.

He has once or twice fancied that his flocks had a touch of a disease akin to the reputed "fowl-cholera." But he checked this (whatever it was) by the free use of carbolic acid disinfectants, and subsequently by thoroughly purifying his hen houses by fumigation.

Desperate diseases demand the application of desperate remedies, we read. And in several instances where the premonitory symptoms have thus shown themselves, the alarmed owners of the menaced fowls have administered calomel and blue mass — in two-grain doses, or four grains of blue mass mixed with two grains each of gum camphor and Cayenne pepper —

say twice a day. This we should say would either kill or cure, certainly!

In the cases referred to, the experiment proved fortunately successful; albeit the owners acknowledge that they were not positive that the threatened disease "was really *cholera*, or something similar."

It has proved quite contagious, nevertheless, in certain districts. And yet it is clearly of a typhoid dysenteric character, from the outset. The remedial treatment thus far experimented with has not been encouragingly successful, inasmuch as most of those who have suffered from its presence amongst their stock, have acquired no knowledge of its cause, or what mode is best to adopt as a curative.

Meanwhile, the malady is of so violent a character, that when it comes upon their premises, their birds die by scores, before they can decide what is the real difficulty, or how they may contrive to relieve them.

We have no doubt that bad *locations* have much to do with this trouble. And we seriously opine that if seen to at once in most places, and (as in Todd's case) treated vigorously — *as for malignant dysentery, or inflamed diarrhœa*, the birds may be saved, in many instances.

But — as in all other cases of fowl disease, which we have herein noted — we claim that if the chicken-premises are kept uniformly cleanly and sweet, if the hen-houses are not overcrowded and are daily well ventilated, if the stock is fed judiciously with sound and varied food, if the poultry is kept free from lice, and are housed comfortably in cold and bad weather, and pure fresh water is furnished them, always — there will be little or no "chicken cholera" about.

Dr. A. M. Dickie, of Penn'a., who writes very cleverly upon this subject, but who, like most scientific writers inclines to go so deep down into professional technicalities as to mar the usefulness of his papers to the general reader, communicates a theory to the Hartford Poultry World that this "chicken cholera is a *blood* disease."

The editor of this popular magazine commends this article by Dr. D., but takes the ground that it is quite immaterial what the real character of the malady is, if we can find a remedy for it, that is practical and efficient. The editor observes ——

"Although there is, *prima facie*, a *seeming* variance of opinion in this communication, on Dr. D's part, as compared with our previous editorials on this subject, still our learned correspondent agrees with us almost to a dot, for he admits in the opening paragraphs that when we say "we think this disease is *zymotic* in character, this view is undoubtedly correct."

"What the real pathological cause may be, is unknown," continues Dr. D. (and we have very explicitly stated this same thing, in other words). But the Doctor adds: "The essential morbific substance of a miasm is entirely unknown to science, as yet." It "*may* consist of *infusoria*" (as we suggested originally), concludes the Doctor; "but that is a matter of conjecture rather than of demonstration."

Now we have neither the space to spare for it, nor the inclination, to enter into a lengthy argument or dissertation about technical phrases and medical terms. The great trouble with our "largely educated men" (and the medical fraternity is especially open to this criticism) is, that they are all too pedantic and too profound in their elaborate writings upon the simple topic of fowl diseases, for the comprehension and benefit of the every-day reader of a poultry paper; and they do not seem to be aware of the fact that the average chicken-raiser does not appreciate their elongated, long-drawn, technical descriptions of "diagnoses," "miasms," "morbific substances," "catalyses," etc.

To arrive at the plain conclusion reached by Dr. D., which we candidly think differs scarcely at all from our own more briefly-expressed views, the writer has skilfully and with great show of erudition, we admit, stated only just what we have previously set forth about Chicken Cholera. We said, briefly, we thought it zymotic in character. The Doctor says this is correct. We said that filthy, over-crowded premises, foul water, bad ventilation, neglect of the stock, and poorly provided quarters or food for poultry, helped largely to produce what is *called* "Poultry Cholera." The Doctor says only the same thing, in half a dozen long paragraphs.

It *may* be "blood poisoning," as Dr. D. suggests. We did not assert that it was not. Indeed, we think it quite imma-

terial whether it be a blood, muscle, intestine, flesh, mucous membrane, bowel, stomachic or brain affection. All, or any of these diseases in fowls may be occasioned by, or originate through, *zymotic* influences. The blood may thus be "poisoned." And though it is quite possible (as we all admit) that its actual "pathological condition is not known," yet, as Dr. D. clearly states, it has its origin "in a special miasm," which, by *inhalation*, produces, etc.

This is precisely what we affirmed. And, through inhalation, imperceptible *infusoria* may be taken into the lungs, and thus into and through the system, "producing fermentive action," as we believe. Now, what we want, Doctor, is a clearly-proposed remedy for this trouble, set down in plain terms.

We will only add that Dr. D. has evidently not availed himself of a knowledge of the certainly demonstrated fact (within the last ten years), promulgated by German, French and Italian *savans*, that microscopic growths, either vegetable or animal, are positively known to produce epidemics — such as cholera, dyphtheria, scarlatina, epizootic affections, etc. And we know of more than one American scientist who has also demonstrated this."

Here we opine is the gist of the thing, so far as the prime *cause* is involved. Our fowls are poisoned "by a special miasm," and this miasm exists in some virulent and perhaps concealed form, contiguous to the premises — in the grounds, in the immediate neighborhood, amongst their food, etc. And this cause must somehow be *removed* from the vicinities, or from the premises, where the fowls are thus fatally affected by its presence.

It is very certain that this malady or distemper — from whatever cause it originated — is *choleratic* in its action, its symptoms, its violence, and its fatality. Thousands of good fowls have been swept away by it, in the West and South. Poultry men there are alarmed at it; and as in the time when the "swine cholera" was familiarly epidemic, the chicken breeders have now become very cautious about the food and feeding of their flocks, and more latterly the disease is not so prevalent.

If we have had this distemper present in New England at

all, it has not been of a serious character. It may be that our climate here favors us in this respect. But all the complaints that reach us, come from the west and south — and there this plague has been very troublesome and severe.

We are not unmindful that in the past two or three years we have had in New England many fatal cases from an internal disorder among poultry-stock quite analogous in some of its symptoms to this western so-called "cholera." But wherever our attention has been called to this illness, we have upon examination found the ailment to be a phase of slow fever, at first, and subsequent virulent diarrhœa.

In these instances, the birds have have gone down gradually, but constantly, in condition, for weeks from the beginning. Up to within a few days or hours before death, they have eaten well, but have drank often — evincing continual thirst. Then diarrhœa has set in sharply, and they have expired. I consider this clearly a phase of dysenteric *roup* — and for this only should I treat the affection, if it should exhibit its symptoms in my runs. Various "Mixtures" are offered as correctives for this disorder. I think the *German*, and *Graves'* Roup Pills, very good palliatives. The latter are highly commended by H. A. Shorey, Wm. E. Shedd, Geo. F. Seavy, C. W. Chamberlain and others, who have used them with excellent results.

But there exists some *local natural cause* for this wholesale destruction of domestic birds in certain districts, unquestionably. This malady is largely fatal in its work, and in the west it is clearly of a destructive character. It is said by those who have examined diseased yards, that the cause has been found to have been generated in the place or its immediate vicinity (in several cases) where the trouble was most fatally severe. And this ruin was occasioned by the miasmatic, putrid, filthy condition of the soil (and neighborhood) where these fowls had long been kept.

In the hospitals, diseases known as small pox, virulent typhoids, yellow fever, etc., are known at times to spread among patients not hitherto thus afflicted — from the foul emanations

that exude from the actual fever subjects, when crowded into such places through sudden emergency.

So it probably operates with this "chicken cholera," when it once starts in a flock; and from the putrid emanations issuing from the early affected birds — particularly if crowded in large numbers together — the disease is swiftly communicated to others, until the whole are sickened, seriously or fatally.

Take half a dozen well fowls at sunset, and shut them up (in any season) in a clean, dry room, as large as fifteen by twenty feet. Leave them there without any ventilating opening in the apartment over one night, and visit the enclosure personally next morning. If you are able to remain in that room with those birds three minutes, with the door and windows still closed tightly, you have a more muscular and less sensitive stomach than the average of humans.

The stench from the bodies of these half dozen *well* fowls is sickening. How much more imperative is it, then, that the quarters of sick fowls should be well ventilated, especially? And how necessary to the benefit of *any* poultry, sick or well, must be a circulation of fresh, purifying air, and the ample ventilation of their houses?

Now, the *cause* for the generation of malignant disease should not be suffered to exist at all. Fowls cannot be kept in or upon such infected disordered foul spots. And the remedy — to begin with — must be to remove the living stock beyond the baleful influence of such miasmatic death-districts, or apartments, or else remove the putridity, filth, and poisonous deposits (whatever they may be) from the fowl premises, and their neighborhood.

It has been costly work for some American breeders — as we know — to fight this enemy! And the end is not yet, by any means, unfortunately — although in some quarters, this plague has come to be partially manageable.

The trouble is no doubt brought about, in the first instance, from the exposure of the stock to infested, swampy, or foul

grounds and runs — or by keeping the birds in contiguity to such miasmatic or befouled premises.

This disorder exhibits many of the symptoms which are premonitory in human beings afflicted with malarial *cachexia* — such as a paling and sallowness in the features, loss of flesh and condition, rapid diminution of muscular strength, general nervous lassitude and prostration, and the liability at any hour to sink suddenly under any incidental disease that may assail the subject, at such a time.

The approved remedy for this affliction to *humanity*, is, the removal of the patient entirely from the vicinity where the affection originates, to a purer atmosphere, and uncontaminated soil. And, subsequently, to restore the stricken bodily system through wise treatment, good food, and sustaining tonics.

A similar method would in our judgment unquestionably recruit a body of domestic fowls — but the suggested remedy should be seasonably applied. And the sooner this change is made, upon discovering the above noted choleratic or malarial symptoms, the greater the proportion of birds will be likely to be saved from death, after being attacked by this "chicken cholera."

All we can add on this topic is that *we* never had any of this disease show itself in our yards — and we sincerely trust we never may become personally acquainted with its shocking results.

If we should find it breaking out in our runs, *we should directly apply the remedies we have suggested for aggravated dysentery.* But so long as fowls are housed and kept and sheltered and fed as we have long been in the habit of attending to ours, we do not fear any of these disastrous visitations among our flocks.

We reiterate the convictions — impressed upon us during long years of practical trial and experience in this business — that cleanliness in the fowl houses, dry soil in the runs, pure air and plenty of it, proper ventilation at all seasons, good varied food, attentive care, fresh untainted water, absolute

exemption from vermin, and a love of the occupation, are the requisites towards breeding poultry advantageously; and these comprise the necessities for keeping them in good health, and continuous thrift.

With these — disease is kept at bay. Without *all* these requirements, poultry can not be kept profitably, or healthily. And we do not doubt if those who have been so sorely troubled with what is denominated "Fowl Cholera," should adopt a strict regimen of cleanliness, thorough ventilation, and good care for their stock, that they would experience a change for the better among their poultry, at once; and have little cause to fear this bad-*named* disease among their flocks, in the future.

ACCIDENTAL MALADIES.

Under this head we include many of the nominal "diseases" of fowls — as set down in the categories of the poultry books — to wit: — Apoplexy, heart disease, rheumatism, neuralgia, deformities, frozen combs and feet, feather-eating, egg-devouring, wounds from fighting, temporary blindness, loss of plumage, colds, common fevers, paralysis of limbs, the "pip," "gapes," costiveness, discolored comb, bumble-foot, scaly legs, etc.

The above enumerated ills are more or less common in a mild form among domestic gallinaceous fowls at all seasons of the year. But these evils are incidental, or accidental in great part, to poultry life. Some of these affections are not discoverable by or explicable to the novice or amateur; and it is only the experienced breeder who detects the real character of some others of these difficulties, bad habits, misfortunes, or accidents.

Acute rheumatics, sprains, neuralgia, paralysis of the legs, colds, coughs, and occasional temporary loss of vision (by the closing up of one or both eyes) are simply *local* diseases, brought about by local and removable causes. With any of these

troubles, fowls are usually not sick a great while at a time. Lameness, or "breaking down" in the legs from apparent partial paralysis, is the most serious of all these accidental difficulties.

If this proceeds from an affection of the spinal cord (as is sometimes the case) it is incurable; though a fowl may live for weeks or months after the attack — helpless as to locomotion comparatively, but otherwise in good health.

If it occurs from a sudden contraction in the leg-muscles, or tendons, it will be only temporary, oftentimes — and the bird may recover by being placed upon a soft, straw-covered floor, in a warm sunny place, and fed lightly with nourishing dry food, for a week or two.

If the loss of the use of the limbs (as in very long-legged cocks, frequently) is occasioned by a cracking of the skin and flesh on the inside of the hock-joint — a common plaster of fir-balsam bound tightly around the upper shank-joint, at the sore spot, will ordinarily heal up the wound, and set the bird on his feet again, in a little while. In this kind of case, the earlier the break is attended to, after you first observe your fowl to be weakening, drooping, and squatting upon his haunches around the yard — the less time it will take to cure the opening, and heal up this accidental cracking of the flesh.

Neuralgic affections are similar to the rheumatic, and these are terms used synonymously among technical poultry men. The nerves rather than the limbs are affected by this disease. It is not a common complaint, however, and little is known of, or about it.

Deformities — such as hump-back, knock-knees, wry-tail, imperfect comb or wattles (of their kind) twisted wing-joints or turned wing-coverts, crooked toes or feet, etc., are generally hereditary incidents in poultry breeding. Sometimes these defects come from careless mating, or through breeding in-and-in too long; that is, from the same family of stock upon its descendants — or with its progenitors. The only remedy for these "accidents" is to avoid the use of such deformed

birds for purposes of reproduction of the species. A boiled or roasted cock is not likely to transmit his imperfections to posterity, if this is the only (and best) use that is made of his carcass.

Eggs are sometimes, when ready to be laid, accidentally broken in the abdomen of hens. If the fowl be strong, and in good condition at such a time, the disaster may be repaired. A teaspoonful of castor-oil by injection, will work the wreck away, in a single night. But this misfortune frequently proves fatal, nevertheless.

Other hens — especially fat old Cochins and Brahmas, will "break down behind," occasionally, from this same cause; or on account of their gross adipose condition, oftenest. They will then waddle about upon their haunches and stern, with their bodies erect, like that of a Penguin, naturally. But they rarely recover from this condition, to be useful afterwards. We have tried numerous experiments with this sort of accident, with but slight success.

Frozen combs, feet, or frosted wattles — and white or black comb (so designated from its different colors at times), are occasioned by exposure in the night to severe chilly winter air, as a general thing. With the class of birds wearing thin upright high combs, this trouble is common in New England and the North, in our sharp cold winters. In these instances of "frost-bites," the wound may be cured by placing the comb or wattles in cold water, or by bathing the affected parts with fresh clean snow thoroughly, first — then by washing in camphorated spirit, thoroughly. After this, bathe in sweet oil, and press the latter into the pores of the comb or gills — over and around the frost marks. Except in very severe cases, this treatment will effect a cure. In any instance, the saving of a goodly portion of the comb and wattles may be assured. This remedy should be repeated two or three days, successively, for frost-bites, and the hen-house should be looked to, directly — and all crevices or cracks sealed up, to exclude the

night frosts. These accidents very rarely occur during the day and in sunlight.

"White comb" and "black comb" (so denominated, specifically), are often confounded with frost attacks in the cold season. But these two accidents are as common in warm as in cold weather: and, though similar in appearance at first, are of another character in reality. These affections are claimed by some writers as "a disease to which the Cochins, (Shanghais) are constitutionally subject."

Now we have received direct from Canton, Shanghai, and Whampoa, several different clutches of pure China fowls, in our time; and we have bred them separately and together year after year, for many years. But we never encountered or discovered this "constitutional" impediment cropping out in a single instance among the *imported* birds. We set this assertion down therefore as a mere whim. In addition to our own Chinese importations, we have largely bred the imported Forbes, Marsh, Brown, Drake, Cushing, Kerr, Palmer and Cope Cochins, also; and with the originals, we never saw a case of black or white comb disease, (except from frost-bite), among them all.

In later experience, however, — with the progeny of some of this stock — and among the Dorkings, the Malays, the Javas, and lesser-sized fowls, we have met with and known of this "disease" in many instances, as making its appearance in small white (or dark) specks or fine scales, upon cocks' combs — and forming at length a rough flat scabby sore; which, if not removed, will increase to the neck, and down the fowl's breast — rotting away the feathers, as mange destroys the hair of dogs. It is a cuticle affection, nevertheless, and in our judgment altogether "accidental" in character. It may be cured by the application of a salve made of cocoanut and tumeric — one part tumeric powder to four parts cocoanut oil. These make a yellow ointment, and if rubbed on the affected spots half a dozen times, every other day, will heal and cure. "Loss of plumage" may frequently be accounted for by the

presence of this affection in an advanced state — and this condition is sometimes mistaken for ordinary *moulting*.

Feather-eating, and egg-eating, by fowls, are bad *habits*, but are not a "disease." For the first complaint, the birds should be kept *occupied*, when cooped in confinement and compelled to huddle together closely, for lack of spacious home quarters. Strew the house-floor thickly with dry leaves, or short-cut straw; and into this scatter their daily allowance of dry grain-food — oats, barley, broken corn, &c. They will scratch for it, to the last kernel; and thus have no leisure to pluck the feathers from the necks and sides of their otherwise listless companions.

To prevent egg-eating, give them *dark* nests to lay in, in secluded corners or passages, where they cannot *see* their eggs, when dropped. They will soon forget this destructive kind of trick.

Wounds occasioned by frost, from fighting, or other accidental causes, may be healed up speedily with a wash of carbolic, or castile soap-suds, and then with rum or whiskey, alternately, for a few days. Olive oil as a final ointment for cuts and flesh contusions, is very healing and effective — and for ordinary inflamed eyes and head, a wash of weak white vitriol, or alum water, or alum and camphor combined, is excellent.

"Bumble-foot," tumors upon the thighs, abscesses, and unnatural enlargement of the tendons or limb-muscles, are all local and accidental difficulties.

Bumble-foot is caused by bruising the sole; and occurs with heavy fowls that roost too high up, and come clumsily to the hard floor or earth, in descending from their perches. It may be dissipated, if discovered in season, by active friction and rubbing with strong liniment. If not, it will grow to an abscess, which must be opened to the core, and healed up thoroughly afterwards, to save the fowl. But this occasional affliction is hardly worth the trouble it costs to cure it; and it can only be

remedied so as to restore the afflicted bird to subsequent usefulness, by seasonable treatment.

Rupture of the oviduct, or egg-passage, and enlargement of the lower intestines — either of which cause old fat hens of the heavier varieties to "break down behind" frequently, is a difficulty known in the experience of most poultry breeders. As we have elsewhere hinted, this is a vexatious affliction, where the hen is a good one, or a favorite — and it is hard to manage it successfully, toward restoration.

The difficulty may be alleviated, but it can scarcely be cured; since the occasion of the bagging down of the abdominal extremity of the bird is a gradual falling of the overgrown and over-fattened interior, which from its excessive weight and enlargement distends the parts outside of the *cloaca*, unnaturally; from which distension it rarely, if ever, contracts to its original shape again.

The remedy for relief in this case, is, to place the fowl at once upon extreme low diet; and first to starve off and reduce, if possible, the excessive overgrowth of internal fat, which has filled up the lower abdomen. After a few weeks, the hen will resume her wonted uprightness in gait and appearance, and may come round all right again.

If the cause of her breaking down is *not* this kind of internal rupture, but proceeds from the accidental breaking of an egg, inwardly — as is often the case — though the outward indications may be similar, the treatment for this last mentioned trouble is alluded to in another place. The two difficulties are quite different, in reality, and require altogether different management.

We often see fowls, particularly half-grown birds, that sluggishly mope about, seek the sun's rays, close their eyes dreamily and half open the bill, at every breath they breathe. Otherwise they seem well, and in fair condition. Look to the birds directly, that exhibit these symptoms. If concealed *vermin* be not at work upon their skin and flesh — these indications are tokens of an approaching attack of roup.

Remove such bird or birds at once from the rest. Give the mustard or ginger and rhubarb pills, for a day or two. Allow them, for three or four days to drink no water that has not a dash of Tincture of Iron, or Cayenne pepper in it. Feed low for a week, keep them dry and warm — and they will recover.

There is a disease of not uncommon occurrence among the Asiatic varieties of fowls, that has baffled the wits of most experts and breeders of the larger species — the symptoms of which are not unlike those which present themselves under *roupy* conditions.

The affected bird (oftenest a male fowl) will begin to show this affection by the usual drooping and indolent disposition. He will wander and mope about the house or run, and *peck his feathers*, continually — as if he were beset with vermin, or as if his skin and flesh were itchy, or irritated, in some way.

The appetite does not at first seem to be affected, but he becomes useless to his mates, and is inclined to shun them. His flesh is feverish and hot to the touch, and he is restless and constantly striving to alleviate the annoyance, by thrusting his bill actively through his plumage, from breast to rump.

This I believe to be a cuticle affection, induced from internal causes, and resulting from dry feeding, constantly. An excess of whole corn as a daily feed, will produce this; and where poultry-keepers find it "too troublesome" (as some do) to give their birds varied and cooked diet — with a regular allowance of vegetable or green food, their year-old fowls will frequently show this ail. Unless the trouble is understood, and a change in their regimen is adopted, they will worry and pick and harass themselves to death.

I have seen several instances of this kind, and I have recommended physicking, directly. Give a teaspoonful of castor-oil, and a pinch of powdered rhubarb, in cooked soft feed, with sulphur pills every other day, in alternation for one week. Allow the sick bird *no* dry feed (especially corn) in the meantime. Place him if convenient, upon a clean grass run, and let him have no drinking water except such as is im-

pregnated with Cayenne pepper, or asafœtida. In ten days — if taken seasonably — I have never known a case where the bird did not fully recover. If the grass run can not be had, feed chopped onions and cabbage (raw) daily, for green food, and once a day give a meal of boiled rice; and he will do nicely.

The common habit in vogue of feeding dry *corn* to fowls, as a staple allowance, is a great mistake. For laying hens, such feed is almost as useless as pine chips would be, so far as assisting them in the production of eggs. For growing birds it is also unnecessary, and by no means economical. "Damaged" corn thus used by many chicken-raisers, is worse than the good merchantable article. But whole corn — as a chief feed to old or young poultry, of either sex — is next to worthless. This grain should never be used in excess, at all, and three-fourths of all of it that is fed to your birds, ought first to be *cooked.*

An evening feed of cracked (or crushed) corn, is advisable. When you are fattening fowls, for slaughtering, cooked corn meal and vegetables, half and half, is the thing. At all other times, feed but scantily of this grain — unless you wish to render them inwardly fat, and stop your hens from laying well. This error in feeding causes fever, indigestion, constipation, and skin eruptions. It is too heating, too dry, too clogging — by itself. And the system of *varied* food, daily, with but a fourth or a fifth of corn, in any shape, is by far the most nourishing, the most satisfying, and the most economical as to prime cost. We seriously recommend this advice to all who have never tried our plan, because we *know* from experience, oft-repeated practically, precisely what results from this method.

In former times, the common name given to almost all the ails to which domestic fowls were subject, was *pip.* If a bird sneezed, or breathed with difficulty, his owner declared at once "he's got the pip!" If the chicken got lousy, or failed in health and appetite, "that bird's got the pip," was the usual

announcement. And so, whatever happened among the fowls, it was "the pip."

The silly plan adopted by novices in certain quarters, of clipping the end of the tongue of chickens thus affected, is not so commonly in use, in this enlightened day, as formerly. This is not of the slightest utility, and it is brutal, as well. The scaly appearance of the tongue is but symptomatic — and has no reference to the disease itself. This dryness disappears, or sloughs off, usually, as the bird recovers, and the fever in the throat and gullet abates. A bit of garlic given daily, the size of a common pill, three or four times, will help the birds. And a low diet for a week will complete a cure, in ordinary cases.

For the pip is simply a phase of roup, as we have elsewhere stated. If the bird thus affected be examined, his nostrils will be found closed, his throat and tongue is dry, and oftentimes a scaly hardness forms upon the tip or upper surface of the tongue. The fowl snips, or pips, in its attempt to cough or throw off this dry substance. And it is said that when the scale is removed from the tongue, the bird recovers.

This is simply incidental to his cure. Many birds do not show this very hard scaly substance on the tongue, when suffering from "pip" — and still they pip and sneeze, or cough and gape, precisely as do the others.

It is *roup*. And for *that* disease only should they be doctored, if doctored at all. It is not a serious matter, if taken in hand in time. Nor are any of the roup phases unmanageable, if we go about attempting their cure in good season. Here is where we mostly fail. And once more I recommend that watchfulness for the approach of this affection, in any of its various forms, be carefully and constantly kept up, towards a prevention of its prevalence.

"Scaly leg" is a disorder very unsightly, and afflicts old fowls, chiefly. The disease appears upon the surface of the shanks, forms slowly, and is altogether parasitical. If permitted to mature, it grows into rough, greyish-white bunches, and terminates in sores.

To cure it, take it early, and wash the limbs in warm whale oil or carbolic soap-suds thoroughly, first. Then apply sulphur powder mixed with lard, as a salve, for two or three days. Then cleanse, and finish with kerosene, rubbed on with a coarse flannel. The infinitessemal insects are thus destroyed, and the trouble disappears.

Asthma, (so denominated by some writers) is a phase of roup; which disease we have already described. This is simply another name for this common affection — and will be relieved by the treatment we have suggested.

Gout — which affects only old fowls — is not uncommon to such birds as have been indulged in high feed; or those that are forced up to heavy weights annually, for the show-pens. When the birds become *gouty*, there is no difficulty in discovering the fact. And as they do not attain to that "aristocratic" disease until they have outlived their usefulness to themselves or their owners, the sooner they are slaughtered the better for them and their keepers.

Moulting, or the annual feather-shedding of all birds, is described by some authors as a "disease," also. This is but a natural occurrence. Fowls are not "in condition" at this period, but they are not sick — in the true interpretation, at such times. They need better care, just then, nevertheless, since this is a critical transition; and good two or three-year old hens, kept for breeding stock, should be especially looked after, judiciously fed, kept away from the annoyance of the males, and they will generally pass through their moulting safely.

For ordinary feverishness, costiveness, and apparent low condition — a change of diet, with fresh green food, and clean quarters, gives relief. The "pip" and the "gapes" are not very common, nowadays, and are never serious complaints. These are but "incidental," to chicks, and will usually take care of themselves, if the birds have a good range, and fair attention to their daily wants, otherwise.

Both these latter affections come from neglect in their care,

from free access to rotten dung heaps, and by housing in damp barn-cellars or cheerless houses, as a general thing. And upon these points of poor management we have spoken very explicitly in these pages.

"Gapes" in chickens is an affection sometimes produced by the generation of small prickly worms in the throat of young birds. Not always, however. This is occasioned by foul feeding and damp quarters, again. The parasite matures into a worm in the gullet and bronchial tubes, and annoys the afflicted chick, excessively.

It has been argued by some — with considerable show of reason, that these worms originate from the eggs of a peculiar kind of louse that infests the bodies of domestic birds, at times, and which enters through the nostrils and deposits the larvæ that produces the "gape-worm," eventually.

We would not from choice attempt a cure for this, ordinarily — since the methods advised are more troublesome than young fowls thus diseased are usually worth. But "gapes" are not now nowadays much heard of among fowl breeders.

The worms which cause this "gaping" demonstration in fowl, are in the throat, and must be removed — if the evil is expected to be cured. When the discovery of this pest is made, give the bird cracked corn and oats or barley soaked in spirits of turpentine, for one short feed, two or three days in succession.

This will surely kill the *worms* — though it may sometimes kill the fowl, if overdosed with it, as in instances reported not infrequently, where this or some equally powerful medicinal agent is made use of in excess to "cure" sick birds, by inexperienced hands.

For example, a man writes in a late poultry paper that if you wish to cure "gapes" in chickens, "dissolve in water as much soda as it will soak up; and then stir in your meal dough &c., until it is thick enough — and give your chickens *all they will eat.* This is a sure cure," he concludes!

Well, let us see how this operated with a novice soon after-

wards, who tried it, and reported thus; — "I attempted the remedy, and I believe it is worse than the disease! An hour after feeding with this mixture, I found six out of ten chickens lying stretched out, with their claws closed tight, and legs perfectly stiff. I thought my Light Brahmas were all killed by this dose. But I bled some, held others under a stream of cold water, and finally got them out of their *cramps*. But they were no better of their *gapes*. Will you now give me a remedy to cure *this* as well as the other?"

This reminds me of a similar case within my own experience, which occurred some years ago. A man wrote me — "My fowls had got the sore head (roup). I went to the poletry books, and they said give 'em tuppentine and onions and brandy; that'll cure 'em. And so I did — an' it killed ev'ry one on 'em deader 'n thunder, that very night!"

But the gapes in chickens may occur without the presence of the aforesaid worms, at all. This gaping is seen frequently when the young birds have the "pip," as it is termed. If we are disposed to go to the trouble, a quill-feather stripped of all but a third of its softest down, dipped in kerosene, and then thrust into the *small* gullet-passage of the throat, and there turned around quickly once or twice — when drawn out will bring up the little worms, and destroy them. But it must be done cautiously, and two persons are required to do this well.

If chicks are valuable, this will answer. But first ascertain if they have any worms, before giving them "all the dissolved soda they will eat in meal dough" — or any other poison! Crushed corn or broken wheat, soaked in strong alum water, is said to be a good remedy, ordinarily, for this worm-trouble. Yet in all cases with young stock, the simplest medicines and the least given, are the most effectual, to birds that are properly fed and provided for in healthy quarters.

As to advice touching the cure for accidentally fractured limbs, which certain authors offer prescriptions for, we can

only say that we never attempted to remedy *this* misfortune, except by cutting off the victim's head, instanter.

If the case occurs with a cock, he would rarely be worth a sixpence to breed from, (if he could be restored) after recovering from a broken leg. If it occurs to a hen, the mending of her fractured shank is a questionable piece of surgery, at the best. And we look upon all such experiments as cruel to the unfortunate fowls, and quite worthless to their owners, even if successful; while, as we are all aware, not one poultry keeper in a hundred is competent to set a broken limb properly, even if such surgical operation were desirable. If he call in a doctor, the bill of expense would be more than most fowls are worth.

The habit alluded to, on page 37, which some fowls have of eating the feathers off their mates (which is *only* a habit), is variously prescribed for by those who rarely succeed in checking or abating this nuisance. The fowls addicted to this trick should be watched, and the quiet victims who listlessly stand to be thus disfigured, may, upon the parts where the feathers have thus been plucked, have generously rubbed over the spots an ointment made of lard, sulphur and kerosene — which the depredators will not eat a great deal of, subsequently! But I have found the system suggested in another place, of keeping the birds *employed* (so that they will not be thinking of indulging this vitiated appetite) very much the best way to prevent the evil. If they are busied with scratching for their food, scattered amongst the leaves or straw in their pens, they will not stop to pluck the feathers from their companions' necks and sides, very often.

These accidents and incidents occur in all poultry yards more or less. But where fowls are properly tended and housed and treated, far less of these complaints are known, than upon the premises of the careless, indifferent, or reckless breeder. And it will be found by the humane, considerate and kindly disposed keeper of this useful and interesting class of live stock, that a share of his attention given daily to the

condition of his fowls, a watchfulness for their reasonable needs, and an eye open to the probable or possible *approach* of these troubles, will save him toil and money both, in his fowl-breeding experience.

TO CONCLUDE,

We will only add that the ground we have taken in the first pages of this treatise is the true position; inasmuch as actual experience, and the accomplishment of clearly defined results warrant the deductions assumed, that, notwithstanding certain theoretical writers (who have a goodly knowledge of the physical ills that afflict *humanity*) count the number of diseases of *poultry* by scores — there are really less than a dozen kinds of sickness that will give fowl-breeders any trouble.

The majority of these ailments are directly traceable for their cause to the errors and short-comings, carelessness and inhumanity of those who are responsible for the unprofitable and unfortunate results attending their ignorance and indifference.

The different diseases noted in this treatise, embrace all the maladies that are habitual among domestic poultry. If any others occur in the experience of American fanciers or breeders of fowls, they are *exceptional* — not generally prevalent.

And we apprehend that if such exceptional cases are known, they may be readily traced to a correspondence with some one of the leading "diseases" herein mentioned; the *cause* for which will also be found to be similar to those which we have endeavored briefly but clearly to explain.

We have made no attempt here at a display of technical terms, or through studied appellations and mystical phraseology contrived to confound the ordinary reader. We "take no stock" in the profound theories that certain learned authors have set forth, regarding what *we* look upon in the main as a very simple affair.

The Asiatic varieties in late years incline to lose the original bright yellow skin npon the leg, so desirable in that class, when they come to be a year or two old. This has been observed by breeders who cannot readily account for the radical change that occurs with many Cochins and Brahmas, after chickenhood, which show clear lemon or orange colored shanks, at hatching. The skin of the limbs blanches frequently to flesh-color, or almost to white, in their second year.

This will happen to fowls that have frequent access to the ash-heap, or to such as are permitted to roll in unleached ashes for their daily bath. The alkali bleaches the leg-skin. If fowls are kept upon dry lime-rock soil this result will be seen, oftentimes. The only remedy for this disappointing occurrence is to avoid keeping the stock limited to dry hot floors, or permitting them to visit the fresh ash-heap. Birds that enjoy a free grass-run or pasture for a range, are rarely affected in this way.

There is one important recommendation in ministering to these fowl-ails, which we have always found so necessary to average success in treating the invalids, that we feel constrained to insist upon its observance, for the common benefit of poultrymen and their stock. And this is that fowls should never be over-dosed.

The less medicine given them — as a rule — the better they will be off, in the end. They need but very little in quantity, at any time, to operate on them to their advantage, or their destruction. It is easier to kill a good bird with over-dosing, than to work its recovery by judicious physicking. And many of the mineral and powerful medicines proposed by those who have never studied a domestic fowl's actual construction and constitutional habits, are utterly useless as remedies for their little ailments.

So we repeat that the simplest remedials are always the best. What we understand the nature of, and what we know will work in a certain way, regularly and effectively — such as sulphur, castor-oil, powdered rhubarb, alum, sal-soda, alcohol, camphor, cayenne, tincture of iron, garlic, etc., when properly

administered, are the sort of medicines which should be made use of — and *not* the numerous chemicals and minerals advised by those who do not appreciate a fowl's composition, or natural formation.

In the hands of uneducated persons, all these unknown and subtle preparations are simply destructive to the life and health of the feathered tribe; and in our own experience they have rarely proved either useful or beneficial, when we have experimented with many of them. For this reason, we advise and apply in practice the simplest remedies, invariably; and strive so to keep the birds, and provide for their daily needs and comfort, that they may require but little dosing, as a general thing; which we consider much the better mode of management, in the long run.

Entertaining this view, which is established in our own mind as the wisest — through study, and years of experiment — we have passed beyond appreciating the many elaborate methods advised by learned chicken-doctors, who have written first and last upon intricate ways and means to cure common fowl ails.

The farmer or ordinary poulterer is at a loss to understand this pedantic advice. Nine times in ten, the condiments or decoctions recommended by some of these savans could not be procured in our interior country towns, at all! When obtained, the buyer has no knowledge of their use, and is unequal to their rightful application. Therefore we have, in plain language and unmistakeable terms, endeavored to address the contents of this treatise to the clear understanding of those who may be generally profited by adopting the advice contained therein.

We could never appreciate much of this high-sounding flummery regarding poultry, its ailments, and their "scientific" treatment — since we know very well how different are the constitution, the physical construction, and the functions of a gallinaceous fowl, from those of a human being.

We have striven to keep in view the fact that poultry-keepers, as a rule, are neither educated doctors or accomplished surgeons. What the professional man may understand about surgery, an-

atomy, chemistry and medicine — is one thing. What the fowl-breeder desires to know, is, *not* what the studied technical names of the ailments that assail his birds may be, but what is plainly and clearly the trouble, when they are ill; and how he may go about curing or alleviating their ails, without being obliged to cram himself with the intricacies of the *materia medica*, or become a proficient in Latin and Greek, to enable him to decide what he must administer, to cure his sick chickens.

If the writer has succeeded in making himself understood, herein — that is something! He comprehends what he has written, himself, at all events.

Filth, cold and wet yards, poor shelter, improper food, tainted drink, starvation, neglect, sunless houses in winter, or lack of shade in summer, close confinement, lousy nests, dirty floors, foul feed troughs, want of ventilation, etc., etc., are the causes of fowl disease, and death among them.

Reform this, altogether, or do not attempt to breed poultry, is our advice. And if the suggestions made herein towards the performance of the higher and better part in fowl-keeping be followed — we are quite confident that poultry-breeders will be troubled very little with "diseases" among their flocks.

With the nicest care and the best arrangements, however, fowls in American poultry yards and runs will inevitably get sick, more or less — as they will elsewhere.

During the past two years, it has been noticeable that more complaints were current than ever hitherto, of ails among fowls. And this fact induced the author to prepare these pages, in a concise and complete form — limiting the treatise exclusively to the subject of diseases of domestic poultry, because no book devoted to this topic *alone* was in print, and the call for such a work was very general.

As we stated in the opening of this treatise, it is important that we know clearly *what the matter is with our fowls* — when out of trim — before we begin to dose them. This being satisfactorily determined, we can then go about assisting them to throw off the disorders, and do this intelligently.

ADDENDA.

"YAWS."—A NEW NAME FOR ROUP.

Since the first edition of this work was issued, the attention of the author has been called, through several private letters, to a newly NAMED disease that is said to have made its appearance of late in the South and South-west, which one writer has denominated by the novel title of "YAWS;" a term which is defined by some lexicographer as a disease occurring in hot countries, characterised by tumors or ulcers of a contagious type, resembling strawberries, outwardly—which affection (in human beings) is accompanied by emaciation, &c.

A correspondent at Louisville, Ky., writes me that indications quite similar to these appeared upon the heads and necks of several of his Leghorns, Games, Bantams, &c., but that his Brahmas had NOT been affected with it. Still, he "considers it certainly contagious."

The symptoms are the forming of small white specks, at first, which soon spread over ear-lobes and wattles;—and the sides of the face and poll are covered with "bumps," or bunches, which extend to the throat, form into ulcers, and then the birds die.

This is a clear case of virulent ROUP. There is no doubt about it, in our mind. The name "yaws" given to this disease is no more applicable to it (in chicken language) than would be the "itch!" And as to its being "caused by musquito-bites," this is simply folly.

Webster defines the term "yaw" as "rising in blisters, breaking in white froth," etc. The "warts," or "bumps," or bunches thus formed, are white (or colored) pustules. These little ulcers gather upon the comb-base, around the nostrils, upon the cheeks, &c., and if not dispelled, they grow to blotchy sores, turn dark, fill with pus, swell the glands, close up the eyes, obstruct the nostrils, follow into the gullet, and choke or worry the birds to death, finally.

The trouble is first caused by their taking cold, and it IS contagious. If taken in season, it can be cured. It is ROUP, only—in an aggravated shape. Take the affected birds away from the well ones, IMMEDIATELY when you note the first indications. Wash the head and nostrils with alum-water, or diluted vitrol. Bathe the affected parts THOROUGHLY, three times a day. Place the fowl in dry warm quarters. Put Cayenne pepper into the drink, and feed on nourishing but low diet—with ginger and rhubarb pills for physic.

Treat the birds precisely as you would for an attack of roup—of which this is clearly but one violent phase. And if they are not too far gone when you begin with them, they will recover in ten days. The pustules will disappear, the cold will pass off, and there need be lost not one in twenty, that may be at first affected with this ailment.

There should be no DELAY after the first white or red spots show, to see what these "blotches" will come to! They are forming into pustules. They are incipient ulcers. Physic and nurse the sick birds as for roup, and you can save them.

Parties whose poultry has been thus assailed, have innocently trumped up the "yaws" disease; which assails the negroes in very hot climates, as does "Yellow Jack" and "Small Pox," and which is slightly analogous to roup among domestic fowls, perhaps. But this "yaws" is simply one more new name for a very old chicken disease.

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